

Application No.: 10/672,382
Response dated: November 30, 2007

REMARKS

Claims 24, 25, 27, 28 and 42-47 which were previously withdrawn in response to a restriction have been canceled, without prejudice. In addition, claims 36 and 38 have been canceled (without prejudice), and claims 48 and 49 have been added. Therefore, claims 18-23, 29-35, 37, 39-41, 48 and 49 are currently pending. Claims 18, 29, 35 and 39 have been amended herein. Applicants respectfully request reconsideration as to the patentability of the pending claims in view of the foregoing amendments and following discussion.

§ 112 Rejection (written description)

Claims 36 and 38 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Without passing judgment as to the merits of the rejection, claims 36 and 38 have been canceled, without prejudice, and it is therefore submitted that the rejection is no longer applicable.

§ 102 Rejection

Claims 35-38 have been rejected under 35 U.S.C. §102(b) as being anticipated by Futatsugi et al. ('Futatsugi') (U.S. Patent No. 5,533,141).

Independent claim 35, as amended, recites steps of building a set of vectors from the spatial stroke data and associated pressure data, and performing shape recognition by applying a mathematical model to the set of vectors to identify a recognized shape with a shape set (support for which may be found in Applicants' specification, for example, at page 21, line 19 to page 22, line 9). It is submitted that Futatsugi does not disclose (or even suggest) these features of independent claim 35.

Futatsugi apparently refers to a method of analyzing penmanship or handwriting with a computer. The analytical technique Futatsugi employs involves extracting strokes from a handwritten item (e.g., character), correlating each stroke with strokes of the same direction of a standard item, and then summing the degrees of correlation to provide a degree of matching between the handwritten and standard items. See Futatsugi, col. 7, lines 35-40; col. 1, lines 29-

58. With respect to pressure information, Futatsugi states that “writing order information, writing pressure information and speed information are collected or acquired in addition to the trace information in order to reduce an error of information by taking those into consideration.” Id., col. 2, lines 3-6. From this statement it is clear that use of writing pressure information (for example) is merely taken into consideration to reduce an error in interpretation and is secondary to the correlative analysis based on spatial strokes.

In contrast, according to the claimed subject matter, at any given points the spatial stroke information (e.g., x, y coordinates) and pen pressure are combined in vectors. Subsequent analysis is performed on the vectors, meaning that any such analysis, including the application of a mathematical model as recited, is performed on spatial information and pressure information together as a unit for the purpose of shape recognition.

It is accordingly submitted that Futatsugi employs a very distinct technique for shape recognition, and does not disclose the features of building a set of vectors from the spatial stroke data and associated pressure data, and performing shape recognition by applying a mathematical model to the set of vectors to identify a recognized shape with a shape set. It is accordingly submitted that Futatsugi does not anticipate the subject matter of claim 35 or its dependent claim 37 (claims 36 and 38 having been canceled, without prejudice).

Withdrawal of the rejection of claims 35-38 under 35 U.S.C. §102(b) based on Futatsugi is therefore respectfully requested.

§ 103 Rejection (First)

Claims 39-41 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Von Ehr et al. (‘Von Ehr’) (U.S. Patent No. 5,434,959) in view of Futatsugi et al. (‘Futatsugi’) (U.S. Patent No. 5,724,985).

Independent claim 39, as amended, also recites the feature of building a set of vectors from the spatial stroke data and associated pressure data. Neither Von Ehr nor Futatsugi refer to building vectors from spatial stroke and pressure data. While, the Futatsugi reference refers to storing annotations with spatial information in a vector (col. 34, lines 37-42), and the Von Ehr reference indicates in the claim section that line width information may be included in a

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vector with spatial coordinates, neither reference discloses or suggests building sets of vectors from spatial stroke and pressure data (for example, of the form [(x,y),p]).

It is accordingly submitted that the combination of Von Ehr and Futatsugi do not disclose or suggest all of the features of independent claim 39, or of its dependent claims 40 and 41, which are therefore patentable over the references relied upon.

Withdrawal of the rejection of claims 39-41 under 35 U.S.C. §103(a) based on Von Ehr and Futatsugi is respectfully requested.

§ 103 Rejection (Second)

Claims 18-23 and 29-34 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Thornburg et al. ('Thornburg') (U.S. Patent No. 4,318,096) in view of Sites. ('Sites') (U.S. Patent No. 6,408,092).

Independent claim 18, as amended, recites the step of determining a user-selectable object display attribute based on said pressure data. It is submitted that the combination of Thornberg and Sites does not render obvious (at least) this feature of independent claim 18.

The Thornberg reference apparently refers to a pen device that generates an electrical signal that depends upon the amount of 'off-axis force' that is applied to the pen. This is meant to provide a signal to a computing device that corresponds to the off-axis angle the pen makes to a surface. The off-axis angle is taken as an index of the width of a line drawn as the pen moves across a surface – a higher off-axis angle producing a wider line, and a lower off-axis angle producing a thinner line. In other words, the pen taught by Thornburg is designed to provide an electrical signal that allows a computer to simulate the drawing action of the pen, including changes of line width due to tilting of the pen. In the method disclosed by Thornberg, the user does not have discretion as to the type of object display attribute displayed.

In contrast, as described in Applicants' specification, “[p]ressure can be used to differentiate a number of different display attributes in addition to object thickness, such as object fading, shading and dotted or dashed graphics. Applicants' specification, page 28, lines 12-14 (emphasis added). The specification goes on to states that:

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[T]he present invention allows the user to utilize pressure on the digitizer to select certain display attributes within the graphics program rather than use the icons 750. *This can be applied to any application program that allows character set selection or visual attribute selection, such as the selection between character sizes, character fonts, character attributes (italic, bold, superscript, color selection, shadowing, etc.).*

(Applicants' Specification, page 28, lines 19-24; emphasis added).

As the Thornburg reference merely refers to simulating the drawing action of a pen and does not refer to the possibility of using pressure to differentiate other attributes such as font, color selection, shadowing, etc. that may be selected by the user, and the Sites reference does not cure the deficiencies of the Thornburg reference, it is submitted that the references relied upon do not render obvious the subject matter of claim 18 or its dependent claims 19-23. As independent claim 29 recites features analogous to those of claim 18, it is likewise submitted that the references relied upon do not render obvious the subject matter of claim 29 or its dependent claims 30-34.

Withdrawal of the rejection of claims 18-23 and 29-34 under 35 U.S.C. §103(a) based on Thornburg and Sites is accordingly respectfully requested.

New Claims

New claims 48 and 49 depend from amended claim 35 and are therefore patentable for at least the same reasons as those given with respect to claim 35 above.

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Conclusion

Favorable consideration of the claims here is respectfully requested. In the event any issues remain for the Examiner to resolve, the Examiner is invited to telephone the undersigned representative if a telephone or personal interview may expedite allowance of this application.

Respectfully submitted,

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